

MS-001

INSTRUCTIONS FOR COMPLETING THE PROPOSED MONITORING / RECORDKEEPING FORM

An MS-001 must be completed for each new or proposed monitoring/recordkeeping requirement identified on AR-002. Monitoring/recordkeeping is used to evaluate the processes, operations, emissions or other aspects of a facility over a period of time. Monitoring/recordkeeping must provide reliable data from a relevant time period to demonstrate compliance with the permit requirements. Refer to the Periodic Monitoring document *Procedures for Evaluating Periodic Monitoring Submittals in Renewable Operating Permits*, and the technical guidance document *Compliance Assurance Monitoring*, which are available via the AQD website at <http://www.deq.state.mi.us/aqd>.

Records Maintenance is not the same as recordkeeping and does not need to be included on this form. Records Maintenance includes keeping records on file of items such as dates, MSDS sheets, solvents used, Start-up/Shut-down/Malfunction plans, Preventative Maintenance Plans, equipment ID lists or records required to be kept by a rule which exempts an emission unit from the requirement to obtain a Permit to Install. Specification sheets that are kept to provide information such as VOC content, fuel oil density, BTU content or sulfur content of a fuel rather than testing or sampling for these items should also be considered Records Maintenance.

Information regarding report submittal for monitoring/recordkeeping identified on this form should be provided on MS-003.

SRN – Enter the State Registration Number (SRN) assigned to the source.

1. **Operator's Emission Unit or Flexible Group ID** – Enter the Operator's ID of the Emission Unit or Flexible Group subject to the monitoring/recordkeeping. This ID was created in Item 2 on Emission Unit form (EU-003) or Flexible Group form (FG-001). If the monitoring/recordkeeping is source-wide, enter the stationary source's SRN.

MONITORING / RECORDKEEPING INFORMATION

2. **List all Applicable Requirement IDs** – List all applicable requirement IDs from AR-002 for which monitoring/recordkeeping is being used to demonstrate compliance.
3. **Monitoring/Recordkeeping Type** – Select the type of monitoring/recordkeeping system that is used to demonstrate compliance.
 - Continuous Emissions Monitoring System (CEMS/COMS). A fixed monitoring system operating continuously with a specified sampling frequency and averaging time to measure emissions or the opacity of flue gases. A COMS measures the amount of light blocked by the particulate matter in the stack as percent opacity.
 - Parametric Monitoring/Recordkeeping. A system that tracks process operating data and/or control data and uses the data as indicators for emissions. Parameters that may be measured include: vapor pressure, pressure drop, air flow, liquid flow, temperature, viscosity, pH, breakthrough, horsepower, water to fuel ratio, pounds of pollutant per time period, pounds of VOC per gallon applied coating solids, or visible emissions. Predictive Emission Monitoring Systems (PEMS) and Recordkeeping **are** also parametric monitoring systems. A PEMS predicts emissions using an established correlation between the monitored parameter values and the emission rates. A recordkeeping system keeps specific detailed records of measurable information.

NOTE: Recordkeeping is used in conjunction with or is considered part of most other monitoring systems. However, recordkeeping may be used as the monitoring system to record things such as usage rates, operating schedules, or production rates. Recordkeeping may also be a requirement of NSPS or NESHAP regulations. Records may be used to directly verify compliance with permit conditions. If Recordkeeping is the type of monitoring, describe this in

Item 4 and provide all information in Items 5 - 8. Records Maintenance is not the same as recordkeeping and does not need to be included on this form.

- Other. Complete AI-001 to describe the monitoring system if it is not a continuous monitoring system or parametric monitoring.

4. **Monitoring/Recordkeeping Description** – Provide a complete detailed description of the monitoring/recordkeeping system. Include manufacturer and model of the monitor, the pollutant/parameter being monitored, the monitor location (e.g. inlet, outlet, process), whether the monitor is fixed, portable or remote, the Data Acquisition System (DAS), monitoring duration (if non-continuous), data recording method and frequency, and any other pertinent information. If the monitoring portion of the system is a CEMS or NCEMS, include the specific type from the following list:
 - Extractive: The system extracts stack gas from the stack/vent and sends the sample to an analyzer.
 - Extractive/dilution: The system extracts stack gas from the stack/vent, dilutes the sample with conditioned air and sends the sample to an analyzer.
 - Path insitu: This measures the gas concentration in a stack/vent along a path greater than 10 percent of the stack diameter.
 - Point insitu: This measures the stack gas concentration along a path less than or equal to 10 percent of the stack diameter.
5. **Monitoring/Recordkeeping Frequency** – Check the appropriate monitoring/recordkeeping frequency. The frequency is how often the data is collected for analysis. If the monitor is used at more than one site for the same pollutant, indicate the site with the most frequent monitoring/recordkeeping. Complete AI-001 to describe any variances in monitoring/recordkeeping frequency.
6. **Parameter Recorded** – Provide a description of the parameters that will be recorded. Parameters that may be measured include: vapor pressure, pressure drop, air flow, liquid flow, temperature, viscosity, pH, breakthrough, horsepower, water to fuel ratio, pounds of pollutant per time period, pounds of VOC per gallon applied coating solids, visible emissions, usage rates, operating schedules, production rates, VOC content, fuel oil density, BTU content or sulfur content of a fuel, and dates.
7. **Recording System** – Recording may be manual such as written logs or automated such as strip charts, circular charts, or database updates. Complete AI-001 to describe any different type of recording system.
8. **Recording Frequency** – Check the appropriate recording frequency for the recordkeeping. The frequency is how often the data is recorded. Complete AI-001 to describe any variations in recording frequency.
9. **Additional Information ID** – Provide the ID created on the associated A-001 form for any additional information or attachments that supplement this form. Refer to AI-001 instructions to create the ID. If the additional information or attachment is more than one page, label each page to show the relationship between pages.